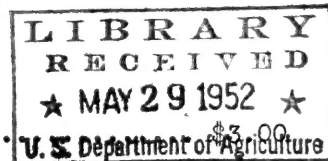


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DRY CULTURE MEDIA FOR PLANTING ORCHID SEED
(Modified Knudson Formula)

Sufficient Media for 10 pint bottles

INSTRUCTIONS FOR USE OF MEDIA

This dry media is complete with nutrients, sugar and agar. BUT DO NOT TRY TO USE FRACTIONAL AMOUNTS OF IT. THE VARIOUS INGREDIENTS BECOME UNIFORMLY MIXED ONLY WHEN IN SOLUTION.

Heat one quart of distilled water in an enamel saucepan until it is steaming but not at the boiling stage. Stir in the dry media and continue to heat to near boiling, stirring frequently. Do not allow mixture to boil rapidly, as the agar will tend to stick to the bottom and scorch. Keep scraping it from the bottom of the pan as you stir.

It will require about $\frac{1}{2}$ hour for agar to dissolve completely. It should be not only clear, like gelatine, but lumpless.

Clear glass pint bottles, such as those that contained syrup or cooking oils, make good flasks and are easier to store than the conventional Erlenmeyer flasks, as they can be stacked in a rack, conserving greenhouse space. However, these bottles must be thoroughly cleaned and scoured. Then rinse, first with hydrochloric acid to remove any alkali, then with distilled water.

When the agar is dissolving, you can be preheating the oven to 225 degrees F. and also preheating the clean, dry bottles, so they will not break when the hot agar is poured into them.

STOPPERS - Strips of sterile cotton about 3" x $1\frac{1}{2}$ " can be tightly rolled into stoppers that fit the necks of the pint bottles. Most instructions say to drip copper sulphate solution on the protruding part of these stoppers after the seed planting is done, but I have found it better protection to saturate the stoppers and dry them out thoroughly in advance of the agar preparation. They should be formed and dried in the necks of bottles identical to (but not the SAME bottles) those used for the agar. Any contact between the agar and the copper sulphate would kill the seed to be planted on the agar.

I like to keep a set of stoppers drying in the necks of bottles that are reserved for that purpose only. This drying process will require several days at room temperature. It can be done more rapidly in a warm oven (set at as low temperature as possible).

PROCESSING THE AGAR - When the simmering agar is thoroughly melted, pour about three ounces of it into each of the ten clean, heated bottles. If there is a little of the solution left, distribute it among the bottles.

Twist the prepared stoppers into the necks of the bottles, and place them in the preheated oven (225 degrees). Leave them there to cook for exactly $\frac{1}{2}$ hour.

Remove the bottles from the oven to a rack, asbestos pad, or top of oven, to cool. Do not place on cold surface such as sink, or they will break. Allow to cool 12 hours. Then return to oven (250 degrees this time) and reprocess $\frac{1}{2}$ hour.

When bottles are removed the second time, lay them levelly on their sides and allow to cool in that position. When agar is firm, it will be ready for planting. Planting instructions are on Page B.

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